

| Control type: | Chemical Class | Example: | Trade Name(s): | Target Stage: | Mode of Action | Application: | LD 50(injection): |
|--------------------|-----------------|-----------------------|----------------|---------------|-------------------------|------------------------|-------------------|
| Natural | Natural control | Gambusia holbrooki | n/a | Larvae | Eats larvae | ponds, bodies of water | n/a |
| | | Bacillus thuringensis | Vectobac | Larvae | Mid-gut paralysis | land/water | >5000 mg/Kg |
| | | Bacillus sphaericus | | Larvae | | | |
| Oil | | Mineral oil | Bonide | Larvae | Suffocation of larvae | Water | >20,000 mg/Kg |
| Synthetic chemical | Organophosphate | | | | | | |
| | | Malathion | Fyfanon | Adult | Colinestrase inhibitor. | fogging (air/land) | 1522-1945 mg/Kg |
| | | Dibrom | Naled | Adult | Colinestrase inhibitor. | fogging (air/land) | 230-325 mg/Kg |
| | | | Abate | Larvae | Colinestrase inhibitor. | granulated | 444 mg/Kg |

* The toxicity to humans' category uses rating nomenclature from the EPA toxicity rating scale, which is based on the LD50. This Scale is on the bottom of Page 2.

** 1/2 life values provided are applicable for soil. Please note different types of soil can result in different 1/2 lives.

| Toxicity to Humans* | Adverse human effect: | Toxicity to other fauna: | Environmental persistence in soil**: | In Use? |
|---------------------|--|---|--|---------|
| None | none | None | live predator. Pop will decrease as food decreases | Yes |
| None | none | May be toxic to bees | 1/2 Life = 4 months | Yes |
| | | | | |
| very low | none | fish (if misapplied) | | Yes |
| | | | | |
| low | High doses dermal contact: skin irritation,rash (inhalation/injection): dizzy, nausea, tremors, convulsions | aquatic invertebrates, fish and other insects | 1/2 life = 1-8 Days | No |
| Low | High doses dermal contact: skin irritation,rash (inhalation/injection): dizzy, nausea, tremors, convulsions | aquatic invertebrates, fish and other insects | 1/2 life = 1 Days | No |
| Very Low | High doses dermal contact: skin irritation, rash (inhalation/injection): dizzy, nausea, tremors, convulsions | aquatic invertebrates, fish and other insects | 1/2 life = 21 Days | Yes |

| Toxicity Label | High Toxicity Danger | Moderate Toxicity Warning | Low Toxicity Caution | Very Low toxicity Caution |
|-----------------|----------------------|-------------------------------|-------------------------------------|----------------------------------|
| Oral LD50 | < 50 mg/Kg | 50-500 mg/Kg | 500-5000 mg/Kg | > 5000 mg/Kg |
| Dermal LD50 | < 200 mg/Kg | 200-2000 mg/Kg | 2000-5000 mg/Kg | >5000 mg/Kg |
| Inhalation LD50 | < 0.05 mg/Kg | 0.05-0.5 mg/L | 0.5 - 2 mg/L | >2 mg/L |
| Eye Effects | Corrosive | irritation lasts 7 Days | Irritation reversible within 7 days | Minimal effects gone in 24 hours |
| Skin Effects | Corrosive | Severe irritation at 72 hours | Moderate irritation at 72 hours | Mild or slight irritation |

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|--------------------|-------------------------|--------------------|--------------------|---------------|--|---------------------------|-------------------|
| Synthetic Chemical | Insect growth regulator | Methoprene | Altosid | Larvae | Mimics natural insect growth regulators, adults do not develop | granules/ bodies of water | >34000mg/Kg |
| Chemical | | Natural Pyrethrins | various | Adult | Central nervous system, disrupts ion potential, prevents neurotransmitter uptake | fogging (air/land) | 1500 mg/Kg |
| Synthetic chemical | | Resmethrin | various | Adult | see Pyrethrin | fogging (air/land) | 1244-4240 mg/Kg |
| Synthetic chemical | | Sumithrin | Anvil | Adult | see Pyrethrin | fogging (air/land) | >5000 mg/Kg |
| Synthetic chemical | | Permethrin | Masterline Kontrol | Adult | see Pyrethrin | fogging (air/land) | 500-4000 mg/Kg |

| Toxicity to Humans *: | Adverse human effect: | Toxicity to other fauna: | Environmental persistence in soil: | In Use? |
|------------------------------|---|---|---|----------------|
| very low | Dermal contact: skin irritation,rash High doses (inhalation/injection): dizzy, nausea, tremors, convulsions | aquatic invertebrates, fish and other insects | 1/2 Life = 10 Days | Yes |
| | | | | |
| Very Low | skin: irritation, blisters Inhalation: coughing, wheezing, chest pain | aquatic invertebrates, fish and other insects | 1/2 life = 12 Days(soil), 1-2 days (surface, water) | No |
| slight | skin: irritation, blisters Inhalation: coughing, wheezing, chest pain | aquatic invertebrates, fish and other insects | 1/2 life = 12 Days(soil), 1-2 days (surface, water) | No |
| slight | skin: irritation, blisters Inhalation: coughing, wheezing, chest pain | aquatic invertebrates, fish and other insects | 1/2 life = 12 Days(soil), 1-2 days (surface, water) | Yes |
| moderate | skin: irritation, blisters Inhalation: coughing, wheezing, chest pain | aquatic invertebrates, fish and other insects | 1/2 life = 12 Days(soil), 1-2 days (surface, water) | Yes |